

WHAT IS CLAIMED IS:

1. A medical apparatus comprising:

an objective lens having an optical axis, onto  
which a luminous flux from a subject is incident;

5       a lens holding unit which holds the objective  
lens;

an image-pickup element which picks up an optical  
image formed by the objective lens, the image-pickup  
element having an image-pickup surface;

10       an image-pickup element holding unit which holds  
the image-pickup element; and

a coupling unit which connects the lens holding  
unit and the image-pickup element holding unit so that  
the position of the optical axis of the optical image  
15       is changed relative to the image-pickup surface of the  
image-pickup element.

2. A medical apparatus according to claim 1,  
wherein the coupling unit includes at least one elastic  
member deformable by external force acting on the lens  
20       holding unit.

3. A medical apparatus according to claim 1,  
wherein the coupling unit includes a plurality of coil  
springs arranged between the lens holding unit and  
the image-pickup element holding unit, the coil springs  
25       individually having tensile forces to pull the lens  
holding unit and the image-pickup element holding unit,  
the tensile forces being balanced to connect the

lens holding unit and the image-pickup element holding unit.

4. A medical apparatus according to claim 1,  
wherein the coupling unit includes a plurality of bar-  
5 shaped elastic members located between the lens holding  
unit and the image-pickup element holding unit.

5. A medical apparatus according to claim 1,  
wherein the coupling unit includes a ring-shaped  
elastic member located in a gap formed between the lens  
10 holding unit and the image-pickup element holding unit.

6. A medical apparatus according to claim 1,  
which further comprises a guide device which regulates  
relative movement of the lens holding unit and the  
image-pickup element holding unit.

15 7. A medical apparatus according to claim 6,  
wherein the guide device includes an adapter, attached  
to one of the lens holding unit and the image-pickup  
element holding unit and having a substantially  
spherical outer peripheral surface, and a seat attached  
20 to the other holding unit and having an inner  
peripheral surface in a shape matching the  
substantially spherical outer peripheral surface of the  
adapter, the inner peripheral surface mating with the  
outer peripheral surface.

25 8. A medical apparatus according to claim 7,  
which further comprises a plurality of plate springs  
which connect the seat and the image-pickup element

holding unit, are arranged substantially at right angles to the direction of the optical axis of the objective lens, and are deformed when subjected to external force in the direction of the optical axis of the objective lens, thereby moving the lens holding unit in the optical axis of the objective lens.

9. A medical apparatus according to claim 7, wherein the coupling unit includes at least one elastic member located near a region for the arrangement of the adapter and the seat.

10. A medical apparatus according to claim 1, which further comprises a relay optical system having an optical path which guides the luminous flux from the objective lens to the image-pickup element, the luminous flux passing through part of the optical path being afocal.

11. A medical apparatus according to claim 10, which further comprises a reflective member which reflects the luminous flux from the objective lens onto the image-pickup element, the reflective member being located on an optical path of the afocal luminous flux of the relay optical system.

12. A medical apparatus according to claim 10, wherein the coupling unit is located in a region corresponding to the optical path of the afocal luminous flux of the relay optical system.

13. A medical apparatus according to claim 1,

which further comprises a reflective member which reflects the luminous flux from the objective lens onto the image-pickup element, the reflective member being held in the lens holding unit.

5           14. A medical apparatus according to claim 1, which further comprises a reflective member which reflects the luminous flux emitted from the objective lens onto the image-pickup element, the reflective member being held in the image-pickup element holding  
10           unit.

          15. A medical apparatus according to claim 1, wherein the image-pickup element holding unit further comprises an imaging lens which forms an image of the luminous flux emitted from the objective lens on the  
15           image-pickup element.

          16. A medical apparatus according to claim 1, wherein the lens holding unit includes an insertional section to be inserted into a body cavity.

          17. A medical apparatus according to claim 1,  
20           wherein the image-pickup element holding unit includes a grip section to be held in a hand.

          18. A medical apparatus comprising:

          an objective lens onto which a luminous flux from a subject is incident;

25           an image forming means which forms an image based on the luminous flux incident on the objective lens;

          an image-pickup means which picks up the image,

the image-pickup means having an image-pickup surface;

a first supporting means which supports the objective lens;

5 a second supporting means which supports the image-pickup means; and

a coupling means which connects the first and second supporting means so that the objective lens and the image-pickup means are optically coupled to each other, the coupling means being elastically deformed so  
10 that the image moves on the image-pickup surface relatively in accordance with external force acting on the first supporting means.

19. A medical apparatus comprising:

15 an objective lens onto which a luminous flux from a subject is incident;

a lens holding frame which holds the objective lens;

20 an image-pickup element which picks up an optical image formed by the objective lens, the image-pickup element having an image-pickup surface;

an image-pickup element holding frame which holds the image-pickup element; and

25 a coupling unit which connects the lens holding frame and the image-pickup element holding frame so that the position of the optical image is changed relative to the image-pickup surface of the image-pickup element.

20. A medical apparatus comprising:

an objective lens onto which a luminous flux from  
a subject is incident;

an image forming lens which forms an image based  
5 on the luminous flux incident on the objective lens;

an image-pickup device which has an image-pickup  
surface to pick up the image;

a first housing which supports the objective lens;

a second housing which supports the image-pickup  
10 device so that the image-pickup device picks up the  
image; and

a coupler which connects the first and second  
housing so that the objective lens and the image-pickup  
device are optically coupled to each other, the coupler  
15 being elastically deformed so that the image moves on  
the image-pickup surface relatively in accordance with  
external force acting on the first housing.